

**TETRACALCIUM PHOSPHATE (TTCP) HAVING CALCIUM PHOSPHATE  
WHISKER ON SURFACE AND PROCESS FOR PREPARING THE SAME**

**ABSTRACT OF THE DISCLOSURE**

A tetracalcium phosphate (TTCP) particle for use in preparing a fast-setting, bioresorbable calcium phosphate cement is disclosed. The TTCP particle has a basic calcium phosphate whiskers on a surface thereof; the basic calcium phosphate whiskers having a Ca/P molar ratio greater than 1.33, and having a length up to about 5000 nm and a width up to about 500 nm. The basic calcium phosphate whiskers are substantially free of a hydroxyapatite phase and mainly composed of TTCP phase.